

Program Description/Textbook or Print Instructional Material

Vendor: Delmar Learning Web Address: www.delmar.com

Title: Agricultural Mechanics: Fundamentals and Applications

Author: Cooper Copyright: 2002

ISBN: 0-7668-1410-6 Course/Content Area: Vocational and Career Education; Agriculture; Agricultural Education

Intended Grade or Level: 9-12 Readability Level: 6.7 (Flesch Kincaid)

List Price: 91.95 Lowest Wholesale Price: 67.75

All materials bid as of July 1, 2003 must be offered in an alternative format for students who require reading accommodations. A description of the levels of accommodation is included on p. 8-9 of this bid packet. The Kentucky Department of Education must receive a copy of the alternative format if the material is placed on the State Multiple List.

Level of Accommodations (Level One, Two or Three) Level Three

If Level Two or Three, please provide rationale for not meeting Level One Compliance It is not financially feasible for our products to meet Level One at this time.

FEATURES

DISCLAIMER: The features of each book or program were developed by the publisher and do not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

Content

- Offering the latest information in the diversified field of agricultural mechanics, this newly expanded fourth edition text, provides instruction on basic mechanical skills and applications, as well as career opportunities in the profession.
- Full coverage is given to aspects of agricultural mechanics, providing the latest information in tools and technology

Student Experiences

- The units are presented in a logical, easy to read and follow format, allowing readers to comprehend concepts and apply them to laboratory or field settings.
- The easy to read format allows students to comprehend the principles and applications of nearly every phase of the field

Assessment

This newly expanded fourth edition text offers the latest information in the field of agricultural mechanics, providing instruction on basic mechanical skills and applications, as well as career opportunities for students in high school and post-secondary programs. Topics covered range from tool identification and maintenance, small engines, electricity, and electronics, to construction and masonry. The units are presented in a logical, easy to read and follow format, allowing students to comprehend concepts and apply them to laboratory settings. Objectives and competencies to be developed are included in each section,

along with a list of new terms, a materials list, student activities, and self-evaluations. This edition is vividly illustrated with the most current full color photos, charts, and diagrams, to help students reinforce their understanding of the book's fluid movement between the principles and application of agricultural mechanics.(agriculture, agriscience, arc welding, woodworking, welding, plumbing, agricultural structures, agricultural mechanics)

Organization

- Vividly portrayed illustrations complement this work with the most current full color photos, charts, and diagrams, reinforcing the book's fluid movement between the principles and application of modern agricultural mechanics.
- The comprehensive appendices also include extensive reference material, making "Agricultural Mechanics: Fundamentals and Applications" an invaluable resource for education and industry.
- Chapters are logically presented and thorough, positioning agricultural mechanics in the broad context of technology, science and engineering

Resource Materials

Gratis Items To Be Provided And Under What Conditions

Instructor's Manual (0-7668-1411-4) Free 1 per teacher

ClassMaster (0-7668-1412-2) Free 1 per teacher

Available Ancillary Materials

RESEARCH DATA AND EVIDENCE OF EFFECTIVENESS

DISCLAIMER: The research data and evidence of effectiveness was provided by the publisher and does not reflect the opinion of the State Review Team, State Textbook Commission, nor the Kentucky Department of Education.

NOTE: *Please complete this section by indicating the research data and evidence of effectiveness or give a web site where the information is located. If there is no research data and evidence of effectiveness, please indicate “not available” in the space.*



Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Agricultural Mechanics/Engineering



Title: Agriculture Mechanics Fundamentals and Application \$67.75			
Publisher: Delmar			
Item Evaluated: Textbook			
Copyright Date: 2002		Evaluator: DJ Matherly	
Content Level: 9-12		Date of Evaluation 29 July 03	
Level of Alternative Format	Level 1 – Full Compliance	Level 2 – Provisional Compliance	Level 3 – Marginal Compliance
This section completed by Exceptional Children Services			

Overall Strengths and/or Weaknesses

Disclaimer: Comments on the strengths and/or weaknesses of each book, material or program were written by members of the State Textbook/Instructional Materials Review Team and reflect their opinions . They do not reflect the opinions of the State Textbook Commission nor the Kentucky Department of Education. In addition, the State Textbook/ Instructional Materials Review Team completed each evaluation form during the week of July 28-Aug. 1, 2003. In order to maintain the integrity of the of the review team's comments, editing was limited to spelling and punctuation.

Recommendations:	
<input checked="checked" type="checkbox"/> X	Recommended by reviewers to State Textbook Commission
<input type="checkbox"/>	Not recommended by reviewers to State Textbook Commission

Publisher's Explanation of Reviewer's Comments: By action of the State Textbook Commission, publishers are provided limited space, 150 words, to respond to what they may consider factual errors made by the reviewers in the evaluation.



Group V - Career/Technical **Vocational/Practical Living Education** **Instructional Materials Evaluation Tool** **Agricultural Mechanics/Engineering**



Title: Agricultural Mechanics Fundamentals and Application		Publisher Delmar	
Technology Management Summary Data:	20 possible points	_____0_____ points earned	
Technology Management Comments:			
Technology Presentation/Interface Summary Data:	40 possible points	_____0_____ points earned	
Technology Presentation/Interface Comments:			
Content Summary Data:	48 possible points	_____35_____ points earned	
Content Comments:			
Instruction & Management Summary Data	52 possible points	_____52_____ points earned	
Instruction & Management Comments:			
Organization & Structure Summary Data	36 possible points	_____36_____ points earned	
Organization & Structure Comments:			
Resource Material Summary Data	40 possible points	_____17_____ points earned	
Resource Material Comments:			



Group V - Career /Technical & Vocational/Practical Living

Electronic Instructional Media Review Form

Stand Alone/Independent or Integrated Software for Agricultural Mechanics/Engineering



Equipment (circle or change fill color)	Grade Level (circle or change fill color)	Audience (circle or change fill color)	Format (circle or change fill color)	Cost ____n/a____	
Windows	Primary	Xx Individual	Stand Alone/Independent	____single copy	____site license
Macintosh	Intermediate	Small Group	Integrated	____network version	____school version
Xx CD-ROM	Middle	Large Group	Xx Supplemental	____lab pack of ____ copies	____online
DVD	Xx High		In lieu of basal test		
Sound					
Other					

If other, explain

Type of Software: Check all that apply	____Simulation	____Management	____Interdisciplinary	____Problem Solving	____Tutorial
____Exploratory	____Creativity	____Drill and Practice	____Critical Thinking	____Utility	____xx____Other:

Rating Scale:	3—Some of the time	1—None of the time
4—All or the time	2—Minimally	0— Not applicable

Management	Rating
Allows customizing for individual learning needs.	
Allows students to exit and resume at a later time.	
Keeps a students performance record, where needed.	
Allows control of various aspects of the software (e.g., turning sound off).	
Allows for printed reports.	
Comments:	Total

Presentation/Interface	Rating
Presents material in an organized manner.	4
Has consistent, easy-to-use, on-screen instructions.	4
Has developmentally correct presentation format.	4
Adapts to different learning environments (learning styles/multiple intelligences, etc.)	2
Accessible for special needs students.	2
Runs smoothly, without long delays.	4
Presents easy-to-view text and graphics.	4
Presents easy-to-hear and understand sounds.	2
Avoids unnecessary screens, sounds, and graphics.	4
Provides immediate, appropriate feedback.	0
Comments:	Total 30

Content—Agricultural Mechanics/Engineering	Rating
Career Focus/Employability Skills/Workplace Readiness Skills	3
Supervised Agricultural Experience (Work Based Learning)	4
Leadership Development / FFA Student Organization	3
Ag. Construction Skills	4
Small Power Equipment	3
Ag. Power & Machinery Operation	3
Ag. Structures and Design	3
Agribusiness/Farm Management	2
Sales & Marketing/Planning, Analysis, Strategies, etc.	2
Technology in Agriculture (Food Animal, Plant, Crop Environmental, Bio-Tech)	2
Emerging Agricultural Technologies (GIS, GPS, Tissue Culture, Cloning, etc.	3
Agriscience Principles	3
Comments:	Total 35

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Instruction and Assessment	Rating
Identifies a Sense of Purpose	4
Builds on Student Ideals	4
Engages Students	4
Develops Agricultural Mechanics/Engineering Ideas	4
Promotes Student Thinking	4
Assesses Student Progress	4
Enhances The Learning Environment	4
Reading level is appropriate for interest and ability level of intended student group; level remains consistent throughout.	4
Commonwealth Accountability Testing System (CATS) "like" Assessment is provided	4
Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.	4
Includes activities and opportunities for integration of technology.	4
Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)	4
Differentiation techniques and activities suggested.	4
Comments:	Total 52

Rating Scale:	3 – Some potential for learning	1 - Not present
4 – High potential for learning	2 – Little potential for learning	0 – Not applicable

Organization and Structure	Rating
Organization is logical and allows for spiraling of content.	4
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	4
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related.	4
Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).	4
Legible type, length of lines, spacing, and page layout and width of margins contribute to overall appearance and use.	4
Student materials seem durable and conducive to daily use.	4
Includes sufficient glossary, index and appendices.	4
Employs accurate grammar and spelling	4
Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.	4
Comments:	Total 36

Resource Materials	Rating
Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated)	3
Activities are included that adapt to the various learning styles, intelligences, and interest/ability levels.	4
Extension activities including adaptations and accommodations for students with special needs.	2
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and/technology and references (e.g. solution manuals, study guides)	3
Suggestions are made for integration of themes and /or interdisciplinary instruction.	3
Integration opportunities suggested and examples given.	2
Teacher resources are available online.	0
Online resources available – Repeat of information in text.	0
Online resources available – Practice skills only.	0
Online resources available – New application materials.	0
Comments:	Total 17

Rating Scale:	
4—All or the time	2—Minimally
3—Some of the time	1—None of the time
	0— Not applicable